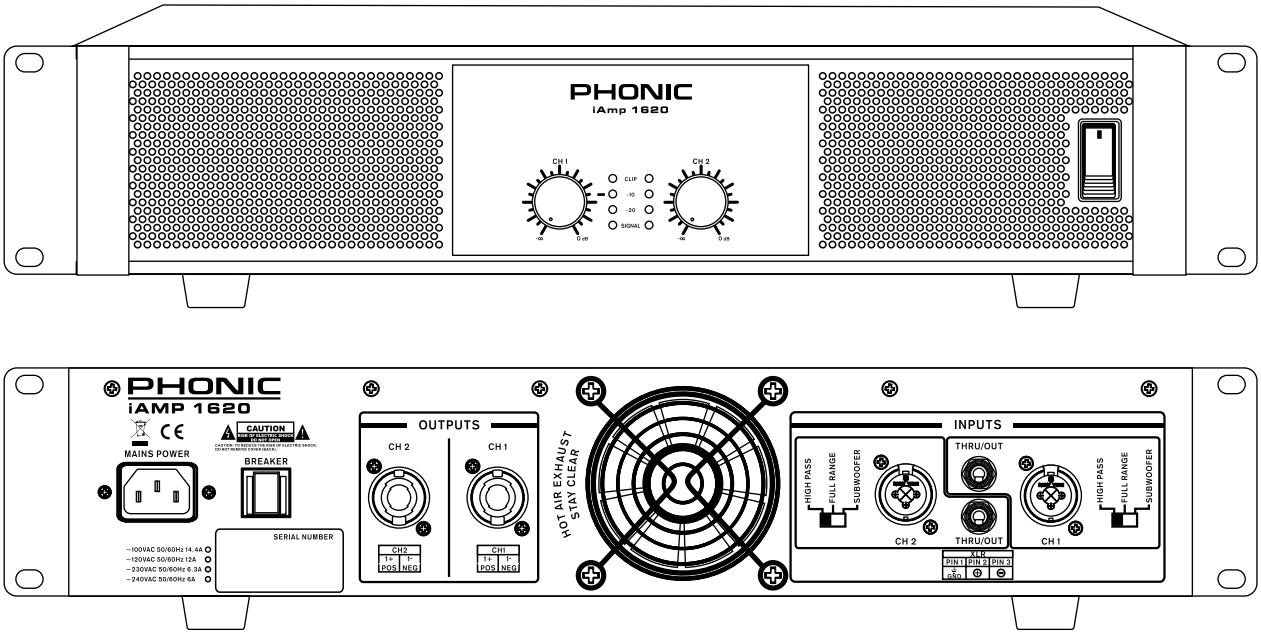
PHONIC



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☑ English ☐ Deutsch ☑ Español ☐ Français ☐ Português ☐ 日本語 ☑ 简体中文

iAMP 1620

- ☑ User's Manual
- ☐ Benutzerhandbuch
- ☑ Manual del Usuario
- ☐ Mode d'emploi
- ☐ Manual do Usuário
- ☐ ユーザーズマニュアル
- ☑ 使用手册

English
Deutsch
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iAMP 1620

1600 WATT DIGITAL AMPLIFIER
AMPLIFICADOR DIGITAL 1600 WATT
1600 WATT 数字功率放大器

ENGLISH I
ESPAÑOL II
简体中文 III

V1.0 08/02/2011

USER'S MANUAL

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English

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Español

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简体中文

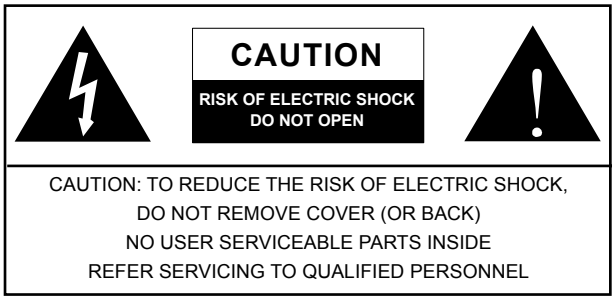
IMPORTANT SAFETY INSTRUCTIONS

The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus. The MAINS plug is used as the disconnect device, the disconnect device shall remain readily operable.

Warning: the user shall not place this apparatus in the confined area during the operation so that the mains switch can be easily accessible.

1. Read these instructions before operating this apparatus.
2. Keep these instructions for future reference.
3. Heed all warnings to ensure safe operation.
4. Follow all instructions provided in this document.
5. Do not use this apparatus near water or in locations where condensation may occur.
6. Clean only with dry cloth. Do not use aerosol or liquid cleaners. Unplug this apparatus before cleaning.
7. Do not block any of the ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plug, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

13. Unplug this apparatus during lighting storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

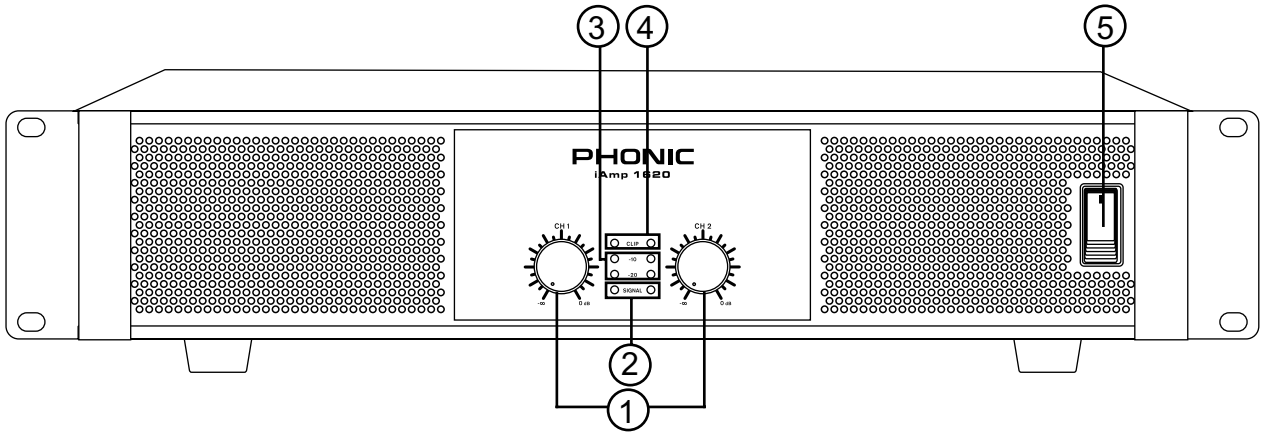

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK)
NO USER SERVICEABLE PARTS INSIDE
REFER SERVICING TO QUALIFIED PERSONNEL

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING: To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

CAUTION: Use of controls or adjustments or performance of procedures other than those specified may result in hazardous radiation exposure.



Introduction

Congratulations on your purchase of another great Phonic product. The iAMP1620 was carefully designed so as to provide phenomenal power in a low-weight, easily-manageable construction that is rack-mountable. Phonic combines its revolutionary D-class amplifier technology with stable, reliable power supplies for fantastic amplification even under the most rigorous of conditions.

Various operation modes are available on each channel, providing users with an easy way to use the iAMP with subwoofers or mid-high frequency speakers without additional gear. Combination inputs were included allowing for more versatile input, while professional-standard speakon output connectors are included for connection to speakers. The iAMP further offers ¼" thru jacks to daisy-chain the input signal into further amplifiers.

We know how eager you are to get started – getting the amp out and hooking all your gear up is probably your number one priority right now – but before you do, we strongly urge you to take a look through this manual. Inside, you will find important facts and figures on the set up, use and applications of your brand new iAMP. Remember that safe operation of an amplifier is of the utmost importance, so we strongly recommend that users heed all warnings and instructions listed in this manual.

Features

- Each channel runs 800 Watts of power into 2 ohms
- Innovative class D amplification circuitry
- Independent fourth-order Linkwitz-Riley crossover
- Convenient combo jacks accepting ¼" and XLR inputs
- Detented front panel input gain controls
- Independent ¼" thru jacks for expanded operation
- 4 pole professional speaker twist lock outputs
- Full range of safety circuits for full protection

Front Panel

1. Gain Controls

These controls adjust the incoming level received by the respective channel 1 and channel 2 input jacks on the rear of the iAMP. It is idea to set these controls to the right-most position to allow optimal use of the incoming signal whenever possible.

2. Signal LED

These LED indicators will light up whenever the iAMP produces a signal through the corresponding input channels, equal to about 4 volts RMS.

3. Level LEDs

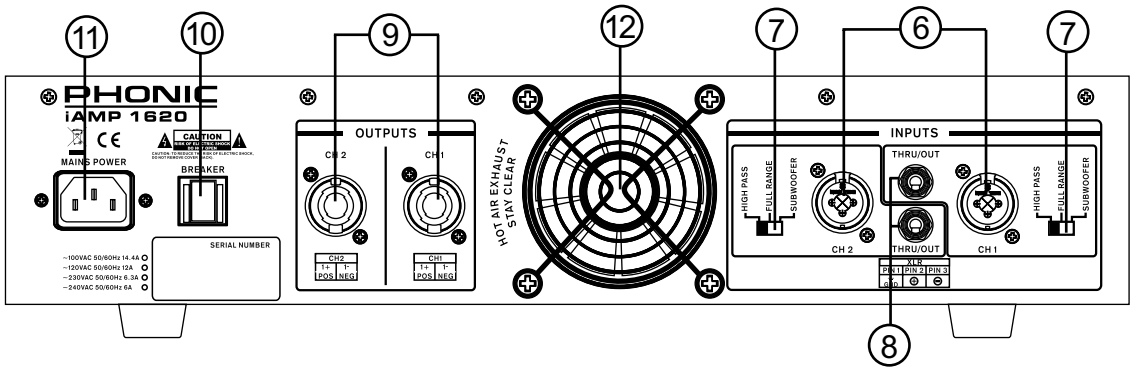
These LEDs will illuminate when the output level of the iAMP reaches the levels indicated, -20 and -10 dB. For best results, set the Gain controls to a level that lets the -20 indicator flash steadily.

4. Clip LED

The Clip LED will light up just prior to the clipping of the output signal, giving users a clear way to know whether to lower the Gain controls to reduce the outgoing signal. A steady flashing or constant illumination will require attention by the user, whereas an occasional flash doesn't necessarily indicate immediate issues.

5. Power Switch

This switch is used to activate and deactivate the iAMP. Be sure to power on all input devices, including mixers and/or signal processors before turning the iAMP on, and ensure the iAMP is the first device you turn off.



Back Panel

6. Combo Input Jacks

Both channels of the iAMP offer actively balanced 'combination' input jacks. These accept either 3-pin XLR or ¼" TRS connectors. The design of the iAMP's circuitry allows for the highest possible input signal level to be received from the majority of sources.

7. Channel Mode Switch

This switch allows the users to select from three operation modes.

High Pass: This position will activate a high-pass filter on the corresponding channel. This is a Linkwitz-Riley filter that will cut all frequencies below 100 Hz. This is ideal for use when additional subwoofer cabinets will be used in the setup, allowing the amplifier to concentrate on signals above 100 Hz for use with mid-high frequency speakers.

Full Range: This position will allow all frequencies to pass through the amplifier; high, mid and low. This setting will typically be used when full-range speakers are connected to the iAMP.

Subwoofer: Selecting this position on the Channel Mode Switch will allow all frequencies below 100 Hz to pass through the amplifier. Again, this is a Linkwitz-Riley filter. This position is ideal for use with dedicated subwoofer speakers, allowing the amplifier to concentrate on these frequencies and thus improving the level of bass and your overall 'thump'.

8. Thru Output

These balanced ¼" outputs allow users to patch the incoming signals directly out to additional amplifiers or input devices. This outputs signal will be dependent on the position of the Channel Mode Switch.

9. Speaker Connectors

The iAMP offers a professional-standard 4 pole speaker connector for each output channel. Twist the cable clockwise to lock speakers into place and counter clockwise to release.

10. Breaker Switch

In the unlikely event that an external influence posses an issue that could potentially harm the unit, the iAMP's breaker will trip. Check all wiring and cables before resetting a tripped breaker. If the breaker trips again, it would be advisable to get in touch with your country's Phonic distributor for repairs and services.

11. AC Power Connector

This input connector is for IEC power cables, allowing for AC power to be sent to the unit. Please use the power cable provided with the unit to power the iAMP. We strongly suggest that you under no circumstances remove the grounding pin from the cable. Doing so could be detrimental to the iAMP's operation and to your safety.

12. Cooling Fan

Due to the heat that can be accumulated when amplifying signals, Phonic includes a variable-speed fan that is temperature sensitive – activated and deactivating as necessary.

SPECIFICATIONS

	iAMP1620
Rated Power (per channel) @ 1 kHz at <0.5% T.H.D both channels driven.	
2 ohms	800 Watts
4 ohms	530 Watts
8 ohms	300 Watts
Amp Specifications	
T.H.D	(2 x 2 ohms) - <0.1% @ 600 watts per channel from 20 Hz to 1.5 kHz, decreasing to 500 watts at 20 kHz at <0.25% (2 x 4 ohms) - <0.1% @ 470 watts per channel from 20 Hz to 20 kHz (2 x 8 ohms) - <0.1% @ 250 watts per channel from 20 Hz to 20 kHz
Minimum Load Impedance	2 ohms
Maximum RMS Voltage Swing	55 volts
Frequency Response	10 Hz to 50 kHz, +0, -3dB @ 1W
Voltage Gain	+35 dB
Crossover	100 Hz switchable 2nd order High pass and 3rd order Low Pass per channel
Crosstalk	> -71 dB @ 1 kHz at 100 watts power @ 4 ohms
Hum and Noise	> -105 dB, “A” weighted referenced to rated power @ 4 ohms
Damping Factor (8 ohms)	> 170:1 @ 20 Hz - 1 kHz at 8 ohms
Phase Response	+9 to - 86 degrees from 20 Hz to 20kHz
Slew Rate	14V/us
Input & Output	
Inputs	Dual Combo 1/4” / XLR
Outputs	Dual 1/4” signal patch, dual Speakon connectors
Input Sensitivity	0.775 volts +/- 3% for 1 kHz 4 ohm rated power, 0.68 volts +/- 3% for 1 kHz. 2 ohm rated power
Input Impedance	15k ohms, balanced and 7.5k ohms unbalanced.
Input CMRR	70 dB @ 1kHz
System Specifications	
Cooling	Temperature dependent variable speed 80 mm DC fan
Controls	2 front panel attenuators, crossover select switch for H.P.F, Normal and L.P.F.
Indicator LEDs	2 (clip limiting), 3 Signal presence (-10, -20, Signal)
Protection	Thermal, DC, subsonic, incorrect loads, under and over voltage
Power Requirement (depends on region)	100 to 120 VAC / 220 to 240 VAC, 50Hz / 60Hz
Dimensions (H x L x W)	88 x 482 x 415 mm (3.46” x 18.98” x 16.34”)
Gross Weight	6.1 kg (13.4 lbs)

*Rated power readings made with BW <10 Hz to 22 kHz. All power measurements made at 120 VAC and 240VAC.

*2 ohm power is time limited by circuit breaker.

SERVICE AND REPAIR

For replacement parts, service and repairs please contact the Phonic distributor in your country. Phonic does not release service manuals to consumers, and advice users to not attempt any self repairs, as doing so voids all warranties. You can locate a dealer near you at http://www.phonic.com/where/.

WARRANTY INFORMATION

Phonic stands behind every product we make with a no-hassles warranty. Warranty coverage may be extended, depending on your region. Phonic Corporation warrants this product for a minimum of one year from the original date of purchase against defects in material and workmanship under use as instructed by the user's manual. Phonic, at its option, shall repair or replace the defective unit covered by this warranty. Please retain the dated sales receipt as evidence of the date of purchase. You will need it for any warranty service. No returns or repairs will be accepted without a proper RMA number (return merchandise authorization). In order to keep this warranty in effect, the product must have been handled and used as prescribed in the instructions accompanying this warranty. Any tampering of the product or attempts of self repair voids all warranty. This warranty does not cover any damage due to accident, misuse, abuse, or negligence. This warranty is valid only if the product was purchased new from an authorized Phonic dealer/distributor. For complete warranty policy information, please visit http://www.phonic.com/warranty/.

CUSTOMER SERVICE AND TECHNICAL SUPPORT

We encourage you to visit our online help at http://www.phonic.com/support/. There you can find answers to frequently asked questions, tech tips, driver downloads, returns instruction and other helpful information. We make every effort to answer your questions within one business day.

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